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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,478	12/31/2003	J. Nelson Wright	341148018US	3939

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EXAMINER

KISH, JAMES M

ART UNIT	PAPER NUMBER
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3737

NOTIFICATION DATE	DELIVERY MODE
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07/02/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/749,478	Applicant(s) WRIGHT ET AL.	
	Examiner JAMES KISH	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-13 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-13 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed March 29, 2010 have been fully considered but they are not persuasive.

Regarding the 102(b) and 103(a) rejections, the Applicant states that "claims 6, 9 and 12 have been amended to clarify certain features of these claims, and more specifically, to clarify aspects of the receiver." Also, that the claims as amended are now in condition for allowance. The Examiner respectfully disagrees. However, the rejections have been altered from 102 to 103(a) rejections based on the new amendments.

Dimmer teaches in paragraph 87 that a "switch network is controllable to control the pulsed excitation signal and can be switched to the 'off' position to terminate the excitation signal after the marker assemblies have been sufficiently energized when the excitation signal is off, the marker signals do not have to be distinguished from the excitation signal when the marker signal is measured and analyzed..." Furthermore, claim 17 of Patent App. Pub. No. 2003/0122653 states, "wherein the pulsed magnetic excitation signal is a programmable pulse burst duration magnetic excitation signal." However, the only difference is that Dimmer does not explicitly teach that this programmable pulse burst duration magnetic excitation signal is programmable via the signal processor device. The switching system of Figure 3 illustratively is contained within the "Pulsed Source Generator." However, it would be obvious to one of ordinary skill in the art to allow this duration to be programmable via the signal processor, since it

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has been held that rearranging parts of an invention involves only routine skill in the art.

In re Japikse, 86 USPQ 70.

Similarly to Dimmer, Mate teaches “the marker signal may be separated from the signal generated by the excitation source via signal processing software or electronics in a number of ways. In one embodiment, the excitation source is turned or gated “on” to excite the marker and then turned or gated “off” to allow for measurement of the marker response without interference by the signal from the excitation source (see paragraph 53).” Though it is not explicitly taught, it would be obvious to one of ordinary skill in the art that this would be turned on and off, or controlled, via the portion of the device containing the user interface (i.e., the receiver portion). In the embodiment in which the system “gates” this, it would be automated. Furthermore, even if the system does not control this within the receiver, it would be obvious to one of ordinary skill in the art to allow this duration to be programmable via the signal processor, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding the rejection to claim 16, no amendments to this claim have been presented. Furthermore, there is no mention of claim 16 within the Remarks with regard to the prior art rejections. Therefore, the rejection of claim 16 still stands as previously stated.

Regarding the Applicant’s request for abeyance of the double patenting rejection, this is noted however, the rejection will remain in all future correspondences as long as it remains applicable to the claims.

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For at least the reasons above, the basis for the previous rejections of the claims still stand and are repeated below.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6, 9, 12 and 16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 10 and 12 of U.S. Patent No. 7,026,927. Although the conflicting claims are not identical, they are not patentably distinct from each other because both disclosures incorporate an excitation source, sensing coils, and receivers.

Claims 6, 9, 12 and 16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,977,504. Although the conflicting claims are not identical, they are not patentably distinct from

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each other because both disclosures incorporate an excitation source, sensing coils, and receivers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7, 9-10, 12-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mate et al. (US Patent Pub. No. 2002/0193685) - herein referred to as Mate. Mate discloses a system for accurately locating and tracking the position of a target. The system includes an external excitation source, a plurality of sensors and a receiver ("a computer is coupled to the sensors and configured to use the marker measurements to identify a target isocenter"). These are all described in the Abstract of Mate. Mate teaches "the marker signal may be separated from the signal generated by the excitation source via signal processing software or electronics in a number of ways. In one embodiment, the excitation source is turned or gated "on" to excite the marker and then turned or gated "off" to allow for measurement of the marker response without interference by the signal from the excitation source (see paragraph 53)." Though it is not explicitly taught, it would be obvious to one of ordinary skill in the art that this would be turned on and off, or controlled, via the portion of the device containing the user interface (i.e., the receiver portion). In the embodiment in which the system "gates" this, it would be automated. Furthermore, even if the system does not control this within the

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receiver, it would be obvious to one of ordinary skill in the art to allow this duration to be programmable via the signal processor, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claims 7, 10 and 13, Mate teaches that data averaging may be utilized to reduce noise (see paragraph 56). This paragraph also discusses the update rate, which corresponds to the "iterations" as claimed.

Claims 6-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dimmer (US Patent Pub. No. 2003/0122653). Dimmer discloses a system for excitation of a leadless miniature marker. The system includes a source (see paragraph 69 and Figure 3), sensing coils (see Figure 3) and a receiver (see "Signal Processing Device" of Figure 3 – it should be noted that the entire signal processing device is being interpreted as the receiver). Figure 5 and paragraph 92 describe that a triangular waveform is used for the excitation magnetic field.

Regarding claims 7, 10 and 13, the system is taught as capable of use with unique markers which are excited and measured either simultaneously or during unique time periods (see paragraph 29). Therefore, the device is capable of providing multiple iterations. As illustrated, the signal processing device combines the data prior to input into the location algorithm.

Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Mate as applied to claims 7 and 10 above, in view of Dimmer. Mate discloses a system for

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accurately locating and tracking the position of a target. The system includes an external excitation source, a plurality of sensors and a receiver. Paragraph 47 describes that an AC magnetic waveform is used to generate the excitation field. However, it is not explicitly described as being triangular. Dimmer teaches a system for excitation of a leadless miniature marker. Figure 5 and paragraph 92 describe that a triangular waveform is used for the excitation magnetic field. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a triangular waveform for the excitation source, as taught by Dimmer, as a matter of design choice. The triangular waveform would not provide unexpected results and would provide similar functionality as a square wave or sinusoidal.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

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that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES KISH whose telephone number is (571)272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/
Supervisory Patent Examiner, Art
Unit 3737

JMK